

REMARKS

Applicant respectfully requests reconsideration of the present application. No new matter has been added to the present application. Claims 1-39 have been rejected in the Office Action. Claims 1, 19, 38, and 39 have been amended. No new claims have been added and no claims have been canceled in this Response. Accordingly, claims 1-39 are pending herein. Claims 1-39 are believed to be in condition for allowance and such favorable action is respectfully requested.

Informalities

The specification has been objected to in the Office Action because the paragraph beginning on page 5, line 3 contains extraneous text. The paragraph has been replaced with an amended paragraph that deletes the extraneous text. Applicant respectfully submits that the amendment overcomes the objection to the specification.

The drawings have been objected to in the Office Action because reference character 100 shown in Figure 13 was not mentioned in the specification as required by 37 CFR 1.84(p)(5). The specification has been amended by replacing the paragraph beginning on page 19, line 9 with an amended paragraph that mentions reference character 100 shown in Figure 13. Applicant respectfully submits that the amendment overcomes the objection to the drawings.

Rejections based on 35 U.S.C. § 101

Claims 19-37 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. It appears that the rejection is based on the belief that the claims are directed to functional descriptive material (e.g., a computer program) *per se*, which would be non-statutory. However, Applicant respectfully submits that the claims are not directed to functional descriptive material *per se* but instead are directed to a computer-readable medium

having functional descriptive material embodied thereon, which is statutory subject matter.

MPEP §2106 sets forth the distinction between claiming computer programs *per se* and claiming a computer-readable medium having functional descriptive material:

[C]omputer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material *per se* and hence nonstatutory.

Here, claim 19, as amended, is directed to “A computer-readable medium having computer-executable instructions embodied thereon” Therefore, claim 19 is not directed to a mere program listing (i.e. functional descriptive material *per se*). Instead, claim 19 is directed to a computer-readable medium having functional descriptive material embodied thereon and is thus statutory. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 101 rejection of claims 19-37.

The Examiner has also rejected claims 1-39 in the Office Action under 35 U.S.C. § 101 as being directed to non-statutory subject matter, indicating that the claims are directed to manipulating abstract ideas. In particular, the Examiner has indicated that the claims recite “the bitmap brush . . . specified by a bitmap image,” but that a bitmap image does not necessarily have pixels, such that the end result of the claims does not have a practical application. First, Applicant respectfully submits that the claims are directed to a practical application because the claimed methods and systems produce a concrete, tangible and useful result. In particular, the

claims provide systems and methods for producing a brush stroke, which is a concrete, tangible and useful result. Independent claims 1, 19, and 38 have also been amended to remove the above-noted recitation cited by the Examiner and to include the recitation: "the bitmap brush comprising a bitmap image having pixels." Applicant respectfully submits that the foregoing remarks and the noted amendment overcome the rejection of claims 1-39 under 35 U.S.C. § 101 and requests withdrawal of the rejection

Rejections based on 35 U.S.C. § 112

Claims 1-39 have been rejected in the Office Action under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Applicant respectfully submits that the following remarks and corresponding amendments overcome the rejections under 35 U.S.C. § 112 and requests withdrawal of the rejections.

First, both independent claim 1 and 19 were rejected because each recited "the guide line" while earlier reciting a "guideline." The Examiner has indicated that the recitation of "the guide line" lacks antecedent basis. Both claims have been amended to change "the guide line" to "the guideline."

Next, both independent claim 1 and 19 were rejected because "a bitmap image" occurs twice in each claim without specifying if the second "bitmap image" is the same as or different from the first "bitmap image." Both claims have been amended to clarify that the second reference refers to a "portion of the bitmap image." Support for this amendment may be found in the Specification, for example, at page 23, lines 14-19 and Figure 22.

Independent claims 1 and 19 were rejected because the claims recited a "bitmap brush having pixels," while also reciting "the bitmap brush . . . specified by a bitmap image."

The Examiner has indicated that these definitions are different because a bitmap image does not necessarily have pixels. Both claims have been amended by replacing the first recitation with a “bitmap brush comprising a bitmap image having pixels” and removing the second recitation. A similar rejection was made to independent claim 38, which was likewise amended to recite a “bitmap brush comprising a bitmap image having pixels.”

Claims 19-37 were also rejected because the claims “do not claim how computer-readable medium having computer-executable instructions performs the claimed steps. A computer is needed to perform the steps.” Office Action, pg. 9. Applicant respectfully submits that the Examiner is misreading the language of the claims. The claims, as amended, are directed to a computer-readable medium having computer-executable instructions embodied thereon for performing a method. The computer-readable medium having computer-executable instructions embodied thereon is not claimed as actually performing the method itself. Instead, it is claimed as being capable of being used by a computer or similar machine to perform the recited method. In other words, it is implicit that a computer or similar machine may be employed to use the instructions embodied on the computer-readable medium to carry out the method. Applicant respectfully submits that a computer is not required to be claimed as suggested in the Office Action.

Finally, claims 1-39 were rejected because independent claims 1, 19, and 38 were previously amended to include the recitation: “wherein the bitmap brush is a virtual paint brush specified by a bitmap image.” In particular, the Examiner has noted that the term “virtual paint brush” does not appear in the specification and “the true meaning of this term is not clearly set forth in the claims.” Office Action, pg. 10. The amendment containing the term was previously made in response to a rejection under 35 U.S.C. § 102(e) based on U.S. Patent No. 6,173,075 to

Collins (the "Collins reference"). However, Applicant has reconsidered the rejection and believes that the amendment was not necessary. Accordingly, independent claims 1, 19, and 38 have been amended to remove the reference to this term. Although the previous amendment made in response to the rejection based on Collins has been removed from the claims, Applicant respectfully submits that the claims are not anticipated by the Collins reference and requests that the Examiner not reinstate the previous 35 U.S.C. § 102(e) rejection based on the Collins reference. In particular, Applicant respectfully submits that the Collins reference fails to describe, either expressly or inherently, each and every element as set forth in the currently amended claims.

Although the claims are not currently rejected under 35 U.S.C. § 102(e) based on the Collins reference, because the amendment made in response to the previous rejection has been removed in the present amendment, Applicant feels that it would be appropriate to demonstrate why the Collins reference does not anticipate the claims as currently amended. Initially, independent claim 1, as amended herein, recites a method for drawing a brush stroke with a bitmap brush comprising a bitmap image having pixels. The brush stroke is rendered relative to a guideline that specifies an arbitrary path for the brush stroke. The method includes determining a first polygon on the guideline, determining a first segment in the bitmap brush corresponding to the first polygon on the guideline, and applying a first transformation to the portion of the bitmap image mapped in the first segment in the bitmap brush to generate a corresponding bitmap image in the first polygon on the guideline.

In contrast, the Collins reference is directed to a method for converting a pixmap of a hand-drawn drawing into a set of vectors representing the drawing. *See* Collins at col. 1, lines 7-8; col. 2, lines 40-43. The method includes scanning an image and converting the

scanned image to a bitmap image. *See id.* at col. 6, lines 18-31. Next, a line art boundary is defined by generating strokes, or a closed loop of a sequence of points or vectors around boundaries within the image. *See id.* at Abstract; col. 7, lines 8-17. Each loop is a vector representation of the outer perimeter of a portion of the image or a hole associated with a particular outer perimeter. *See id.* at Abstract. A vector representation is also generated for color art regions, which are defined by the area within an outer perimeter minus any hole areas within the outer perimeter. *See id.* at col. 2, lines 47-62; col. 3, lines 3-10. The end result of the method is a set of vectors that represent the drawing as opposed to a pixel representation. *See id.* at Abstract; col. 2, lines 40-43; col. 5, lines 4-10. The Collins reference indicates that the vector representation overcomes a number of disadvantages of using a pixel representation. *See id.* at col. 2, lines 18-37; col. 4, line 45 through col. 5, line 41.

The Collins reference, however, does not describe, either expressly or inherently, determining a first polygon on a guideline, as required by independent claim 1. In particular, the Collins reference does not describe a guideline as that term is used within the present application. As stated in independent claim 1, the guideline specifies an arbitrary path for a brush stroke. The Collins reference is concerned with converting a pixmap to a vector representation, not with drawing a brush stroke. Therefore, there is nothing similar to a guideline described in the Collins reference. Because the Collins reference fails to describe a guideline that specifies an arbitrary path for a brush stroke, it likewise fails to describe determining a first polygon on the guideline. Moreover, any polygon described in Collins is generated based upon the pixmap image. In contrast, determining a first polygon on the guideline in claim 1 of the instant application is independent of any image. Accordingly, the Collins reference fails to describe, either expressly or inherently, determining a first polygon on a guideline, as recited in independent claim 1.

Next, the Collins reference fails to describe, either expressly or inherently, determining a first segment in a bitmap brush corresponding to the first polygon on the guideline, as required by independent claim 1. As discussed above, the Collins reference does not describe a guideline as that term is used within the present application and does not determine a polygon on the guideline. Therefore, the Collins reference cannot describe determining a first segment in a bitmap brush corresponding to the first polygon on the guideline.

Finally, the Collins reference fails to describe, either expressly or inherently, applying a first transformation to the portion of the bitmap image mapped in the first segment in the bitmap brush to generate a corresponding bitmap image in the first polygon on the guideline, as required by independent claim 1. Again, as cited above, the Collins reference does not describe a guideline or a first polygon on the guideline. Next, the Collins reference also fails to map a bitmap image within a polygon. Instead, the Collins reference converts a pixmap image to a vector representation. The end result is a set of vectors representing the image, as opposed to a bitmap image comprised of a pixel representation of the image. Accordingly, the Collins reference fails to describe, either expressly or inherently, applying a first transformation to a bitmap image mapped in the first segment in the bitmap brush to generate a corresponding bitmap image in the first polygon on the guideline.

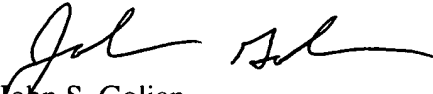
As such, Applicant respectfully submits that the Collins reference fails to describe, either expressly or inherently, each and every element of independent claim 1, as amended herein. Independent claims 19 and 38 each have elements similar to those of independent claim 1. Accordingly, Applicant respectfully submits that the Collins reference fails to describe, either expressly or inherently, each and every element of claims 19 and 38 for at least the above cited reasons. Further, the remaining claims depend directly or indirectly from

one of independent claims 1, 19, and 38. Therefore, Applicant respectfully submits that the Collins reference fails to describe, either expressly or inherently, each and every element of the dependent claims for at least the above cited reasons.

CONCLUSION

For at least the reasons stated above, claims 1-39 are now in condition for allowance. Applicant respectfully requests withdrawal of the pending rejections and allowance of claims 1-39. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned by telephone prior to issuing a subsequent action. It is believed that no fee is due in conjunction with the present amendment. However, if this belief is in error, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112.

Respectfully submitted,


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